

REMARKS

This Response is offered in reply to the office action of January 13, 2009. July 23, 2009. A petition and fee for a two (2) month time extension are enclosed, making this response due on December 23, 2009.

On page 3 of the office action, claims 20-21 and 26-27 are rejected under 35 USC 102(b) or 103(a) as anticipated by or obvious in view of US 5,139,824.

Claims 20, 26 and 27 have been amended in a manner believed to distinguish over the '824 patent.

In particular, the '824 patent teaches a substrate having different layers deposited one on the other and then subjected to an interdiffusion heat treatment. For example, in one embodiment, the '824 patent provides a transition metal layer on the substrate, then an aluminum and/or aluminide layer on the transition metal layer, and then subjects the layers to interdiffusion. In another embodiment, the '824 patent provides an aluminium and/or aluminide layer on the substrate, then a transition metal layer on the aluminum and/or aluminide layer, and then subjects the layers to interdiffusion.

In contrast, pending claim 20 recites a coated substrate comprising a superalloy substrate and a chemically vapor deposited aluminide diffusion coating as-deposited thereon including at a coating region of the aluminide diffusion coating or throughout the aluminide diffusion coating a distribution of a reactive element codeposited with aluminum and comprising Hf, Zr, or both Hf and Zr.

Pending claim 26 recites a coated substrate comprising a superalloy substrate and an aluminide diffusion coating as-deposited thereon including a distribution of Hf codeposited with aluminum at a coating region of the aluminide diffusion coating or throughout the aluminide diffusion coating.

Pending claim 27 recites a coated substrate comprising a superalloy substrate and an aluminide diffusion coating as-deposited thereon including a distribution of Zr codeposited with aluminum at a coating region of the aluminide diffusion coating or throughout the aluminide diffusion coating.

Pending claims 20-21 and 26-27 are not disclosed or suggested by the '824 patent, which teaches away from the pending claims in providing a substrate having different layers deposited one on the other and then subjected to an interdiffusion heat treatment.

Reconsideration of the Section 102(b) rejection of pending claims 20-21 and 26-27 is requested as a result.

On page 4 of the office action, claims 20-21 and 26-27 are rejected under 35 USC 102(b) or 103(a) as anticipated by or obvious in view of US 5,292,594.

Claims 20, 26 and 27 have been amended in a manner believed to distinguish over the '594 patent.

In particular, the '594 patent teaches a substrate having different layers deposited one on the other and then subjected to an interdiffusion heat treatment. For example, in one embodiment, the '594 patent provides a transition metal layer on the substrate, then an aluminum and/or aluminide layer on the transition metal layer, and then subjects the layers to interdiffusion. In another embodiment, the '594 patent provides an aluminum and/or aluminide layer on the substrate, then a transition metal layer on the aluminum and/or aluminide layer, and then subjects the layers to interdiffusion.

In contrast, pending claim 20 recites a coated substrate comprising a superalloy substrate and a chemically vapor deposited aluminide diffusion coating as-deposited thereon including at a coating region of the aluminide diffusion coating or throughout the aluminide diffusion coating a distribution of a reactive element codeposited with aluminum and comprising Hf, Zr, or both Hf and Zr.

Pending claim 26 recites a coated substrate comprising a superalloy substrate and an aluminide diffusion coating as-deposited thereon including a distribution of Hf codeposited with aluminum at a coating region of the aluminide diffusion coating or throughout the aluminide diffusion coating.

Pending claim 27 recites a coated substrate comprising a superalloy substrate and an aluminide diffusion coating as-deposited thereon including a distribution of Zr codeposited with aluminum at a coating region of the

aluminide diffusion coating or throughout the aluminide diffusion coating.

Pending claims 20-21 and 26-27 are not disclosed or suggested by the '594 patent, which teaches away from the pending claims in providing a substrate having different layers deposited one on the other and then subjected to an interdiffusion heat treatment.

Reconsideration of the Section 102(b) rejection of pending claims 20-21 and 26-27 is requested as a result.

On page 2 of the office action, claims 20-22 are rejected under the doctrine of obviousness-type double patenting in view of claims 1, 2, 7, and 8 of US 5,989,733.

Applicants note that claim 22 is cancelled.

Applicants believe this rejection is in error. Claims 1, 2, 7, and 8 of the '733 patent recite a platinum aluminide diffusion coating having particular features that distinguish the claims of the '733 patent and the pending claims herein from one another in a manner as not to require filing of a terminal disclaimer in this application.

Reconsideration of the obviousness-type double patenting rejection of pending claims 20 and 21 is requested as a result.

Allowance of the pending claims is requested.

Respectfully submitted,




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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service under 37 CFR 1.8 as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 22, 2009.



Edward J. Timmer